

original claim 21.

Applicants hereby affirm the election to the Restriction Requirement, as that election is noted on pages 2-3 of the Office Action.

Before addressing the two Section 103 rejections in detail, a brief discussion of Applicants' invention may be helpful.

Applicants have found that non-hydroxylic photoresist solvents, such as propylene glycol methyl ether acetate, generally exhibit decreased solubility characteristics, particularly with respect to onium salt photoacid generator compounds (PAGs), relative to hydroxylic photoresist solvents such as ethyl lactate. See the application at page 4, lines 12-17.

In particular, Applicants have found that a positive-acting photoresist can exhibit significant storage stability, where the resist has a sulfonium salt PAG that contains one or more lipophilic moieties formulated in a non-hydroxylic solvent.

Attention is also directed to the comparative data of the examples of the application. Examples 1 and 2, which included positive resists that contained a sulfonium PAG with lipophilic moiety formulated in a non-hydroxylic solvent, exhibited clearly increased storage stability (i.e. constant photospeed over storage time) relative to comparable photoresists of comparative Examples 1a and 2a that contained an iodonium-type PAG.

As discussed in the application, consistent resist photospeed as demonstrated in Examples 1 and 2 of the application can be critical, e.g. so that a device manufacturer can use the same imaging conditions and obtain consistent results. See page 3, lines 8-18 of the application.

Photospeed variations during storage also are indicative of resist degradation. For example, decreased photospeed of a resist upon storage can indicate degradation of the photoactive compound or other resist components. Storage stability is typically of high importance for a photoresist. Generally, after photoresist manufacture, a resist is stored for several months or more prior to use by a device manufacturer. Any resist degradation during storage typically will only compromise lithographic properties. See page 3, lines 19-24 of the application.

Claims 1-11, 17, 19-21, 25-27 and 31-34 were rejected under 35 U.S.C. 103 over Oshsawa et al. (U.S. Patent 5,847,218). The rejection is traversed.

While Applicants fully disagree with the rejection, it is also believed the rejection has been obviated by the amendments made herein. That is, independent claims 1 and 25 have been amended to incorporate features of claim 22, which claim was not rejected over Oshsawa et al. In view thereof, reconsideration and withdrawal of the rejection are requested.

Claims 1-27 and 31-33 were rejected under 35 U.S.C. 103 over Sinta et al (U.S. Patent 5,731,364) in view of Daniels et al. (U.S. Patent 5,322,765) and Clecak et al. (U.S. Patent 5,322,765). The rejection is traversed.

As an initial matter, the secondary references of Daniels et al. and Clecak et al. are directed to negative photoresists that undergo crosslinking.

In contrast, Applicants claim positive photoresists, which contain a component having photoacid-labile groups. The skilled worker does not readily import disclosure regarding negative photoresists to design positive resist systems as has been proposed by the instant rejection.

For that reason alone, the rejection should be withdrawn.

The cited Sinta patent is commonly assigned and has overlapping inventorship with the present application.

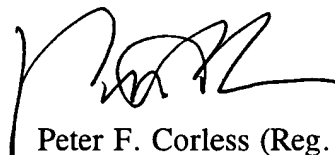
The Sinta patent does not identify the problem addressed by the present application, i.e. storage stability of photoresists formulated in non-hydroxylic solvents. In the examples of the Sinta patent, photoresist compositions are prepared using ethyl lactate (a hydroxylic solvent). See Sinta patent at column 18, lines 59-65.

At column 11, lines 10-24 of the Sinta patent, a rather extensive list of photoresist solvents are identified. No suggestion is seen to select a solvent as Applicant claims, or the good results that would be provided by that selection, as is specifically demonstrated in the examples of the present application.

In view thereof, withdrawal of the rejection is requested.

It is believed the application is in condition for immediate allowance, which action is earnestly solicited.

Respectfully submitted,



Peter F. Corless (Reg. 33,860)
DIKE, BRONSTEIN, ROBERTS
& CUSHMAN
130 Water Street
Boston, MA 02109
(617) 523-3400